## **REMARKS**

Claims 1 to 32 are currently pending.

In view of the following, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

With respect to paragraph three (3) of the Final Office Action, claims 1 to 4, 6 to 8, 10 to 14 and 16 to 32 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 4,489,414 to Titherley (hereinafter the "Titherley" reference) in view of the Plug and Play ISA Specification, jointly by Intel and Microsoft, (hereinafter the "Plug and Play" reference) and further in view of "Transforming the PC: Plug and Play" by Halfhill (hereinafter the "Halfhill" reference).

In rejecting a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. <u>In re Rijckaert</u>, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish <u>prima facie</u> obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. <u>In re Fine</u>, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. <u>In re Vaeck</u>, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. <u>In re Merck & Co., Inc.</u>, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. <u>In re Royka</u>, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Still further, the prior art must disclose or suggest each claim feature and it must also provide a motivation or suggestion for combining the features in the manner contemplated by the claim. (See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990)). Thus, the "problem confronted by the inventor must be considered in determining whether it would have been obvious to combine the references in order to solve the problem", Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675, 679 (Fed. Cir. 1998).

The Applicants respectfully submit that the Office Action has not established a *prima facie* case of obviousness. Specifically, there is no valid motivation to combine the "Titherley" reference with either the "Plug and Play" reference or the "Halfhill" reference.

The nature of the subject matter of the "Titherly," "Plug and Play" and "Halfhill" references is such that it would not be obvious to one of ordinary skill in the art to modify the "Titherley" reference using either the "Plug and Play" reference or the "Halfhill" reference. Generally speaking, the "Titherley" reference is directed to testing computer peripherals with portable test equipment. At any one time, the portable test equipment is only attached to one peripheral under test, or at most a plurality of serially attached devices, such as daisy chained devices described at col. 5, lines 1-5.

In contrast, the "Plug and Play" reference is directed to arbitrating conflicting demands for system resources by a plurality of cards attached to an ISA bus. The plurality of cards are all simultaneously attached to the ISA bus, creating a situation in which the plurality of ISA cards are effectively attached in <u>parallel</u>. Thus, the aim and technological bent of the "Plug and Play" reference is to arbitrate <u>simultaneous</u> requests from a plurality of <u>parallel</u> devices. Accordingly, it would not be obvious to one of ordinary skill in the art to apply such a technology arbitrating <u>simultaneous</u> and <u>parallel</u> requests, as described in the "Plug and Play" reference, to the <u>single</u> or <u>serial</u> device situation of the "Titherley" reference because one of ordinary skill in the art would not think to apply a technology created for <u>parallel</u> devices to a situation involving a <u>single</u> or <u>serial</u> devices. In other words, there are no conflicting requests for system resources in the "Titherley" reference, and therefore one of ordinary skill in the art would not be motivated to apply a technology for resolving such parallel resource request conflicts to a situation that did not involve parallel resource request conflicts.

Still further, the Applicants respectfully submit that the motivation to combine the references provided by the Office Action is not valid in the context of modifying the "Titherley" reference with either the "Plug and Play" or the "Halfhill" references, and thus does not provide proper motivation to combine these references. Regarding the motivation to combine, the Office Action states on page 5 that "it would have been obvious to one of ordinary skill in the pertinent art at the time of the applicant's invention that applying plug and play functionality to Titherley would be able to reduce the complexity of the system, which is a burden to the user, and thus automate the system."

However, the Applicants respectfully disagree that modifying the "Titherly" reference to apply plug and play functionality would in fact reduce the complexity of the "Titherley" reference. It is instead submitted that applying the plug and play functionality would greatly increase the complexity of the system of the "Titherley" reference. For example, the portable test equipment of the "Titherley" reference would need to be modified and enhanced to communicate with plug and play devices in a manner that would accomplish the "Plug and Play" functionality, for example steps 1-7 as shown in FIG. 2 on page 5 of the "Plug and Play" reference, which is significantly more complex than the manner in which the "Titherley" reference already communicates with the peripheral under test. Thus, the portable test equipment of the "Titherley" reference, if modified by the "Plug and Play" reference, would greatly increase in complexity.

Therefore, contrary to the Office's assertions, one of ordinary skill in the art would be dissuaded from modifying the "Titherley" reference with the "Plug and Play" reference due to this increased complexity, which would be burdensome in the design and manufacture of the portable test equipment.

Also, it is respectfully submitted that there would also be no motivation to modify the "Titherley" reference with either the "Plug and Play" or the "Halfhill" references because such a modification would not actually even provide any benefit to a user of the portable test equipment of the "Titherley" reference. The Office is respectfully reminded that, as stated in the MPEP at section 2143.01.III, "[t] he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination" (some emphasis added). The peripherals that the "Titherley" reference were intended to test are not plug and play enabled peripherals. Thus, even if the portable test equipment of the "Titherley" reference were modified to work with plug and play peripherals, it would not provide any increased functionality to the portable test equipment because the "Titherley" reference does not test plug and play peripherals. Accordingly, one of ordinary skill in the art would not be motivated to combine the "Titherley" reference with the "Plug and Play" and "Halfhill" references because it would not be desirable to do so because there would be no benefit.

Furthermore, it would at least be overly burdensome to modify all of the devices that the "Titherley" reference is intended to test to be plug-and-play enabled. For evidence of the incredible difficulty of such a task, the Office is directed to the "Halfhill" reference,

which discusses this at length. The Applicants respectfully remind the Office that, as stated in the MPEP at section 2141.02.VI, "[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention" (some emphasis added). The "Halfhill" references states of page 1, for example, "[a]nd although Plug and Play does a remarkable job of making PCs friendlier while maintaining compatibility with existing hardware, it also requires that you eventually replace almost all that hardware." Within the context of the "Titherley" reference, this requirement to replace all hardware would at the very least be incredibly burdensome, and would consequently dissuade one of ordinary skill in the art from modifying the "Titherley" reference.

Still further, it is respectfully submitted that the cases of <u>In re Fine</u>, <u>supra</u>, and <u>In re Jones</u>, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), make plain that the Office's generalized assertions that it would have been obvious to modify or combine the references do not properly support a § 103 rejection. It is respectfully submitted that those cases make plain that the Office's assertions reflect a subjective "obvious to try" standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. In particular, the Court in the case of <u>In re Fine</u> stated that:

The PTO has the burden under section 103 to establish a prima

facie case of obviousness. It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. This it has not done. . . .

Instead, the Examiner relies on hindsight in reaching his obviousness determination... One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

<u>In re Fine</u>, 5 U.S.P.Q.2d at 1598 to 1600 (citations omitted; italics in original; emphasis added). Likewise, the Court in the case of <u>In re Jones</u> stated that:

Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. . . .

Conspicuously missing from this record is any evidence, other than the PTO's speculation (if it be called evidence) that one of ordinary skill... would have been motivated to make the modifications... necessary to arrive at the claimed [invention].

In re Jones, 21 U.S.P.Q.2d at 1943, 1944 (citations omitted; italics in original).

That is exactly the case here since it is believed and respectfully submitted that the Office Actions to date offer no evidence whatsoever, but only conclusory hindsight, reconstruction and speculation, which these cases have indicated does not constitute evidence that will support a proper obviousness finding. Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby, as explained above.

Indeed, the Federal Circuit in the case of <u>In re Kotzab</u> has made plain that even if a claim concerns a "technologically simple concept" — which is not the case here — there still must be some finding as to the "specific understanding or principle within the knowledge of a skilled artisan" that would motivate a person having <u>no</u> knowledge of the claimed subject matter to "make the combination in the manner claimed," stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed. In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper prima facie case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (emphasis added). Here again, there have been no such findings to establish that the features discussed above of the rejected claims are met by the reference relied upon. As referred to above, any review of

the references, whether taken alone or combined, makes plain that the references do not describe the features discussed above of the rejected claims.

Therefore, there is no valid motivation to combine the "Titherley," "Plug and Play" and "Halfhill" references in view of S8imar, U.S. Patent No. 6,182,203, so that independent claims 1, 6, 10 and 32, as well as their respective dependent claims 2 to 4, 7 to 8, 11 to 14 and 16 to 31, are allowable.

With respect to paragraph thirty (30) of the Final Office Action, claims 5, 9 and 15 were rejected under 35 U.S.C. § 103(a) as unpatentable over the "Titherley" reference in view of the "Plug and Play" reference and further in view of U.S. Patent No. 6,182,203 to Simar et al. (hereinafter the "Simar" reference).

Claims 5, 9, and 15 depend from independent claims 1, 5 and 10, and are therefore allowable over the "Titherley" reference in view of the "Plug and Play" reference for the reasons explained above. Moreover, the third-level "Simar" reference does not cure the critical deficiencies of the primary and secondary references as explained above.

Therefore, claims 5, 9, and 15 are allowable over the "Titherley" reference in view of the "Plug and Play" reference and also in view of the "Simar" reference.

As further regards all of the obviousness rejections of the claims, it is respectfully submitted that a proper *prima facie* case has not been made in the present case for obviousness, since the Office Actions to date never made any findings, such as, for example, regarding in any way whatsoever what a person having ordinary skill in the art would have been at the time the claimed subject matter of the present application was made. (See In re Rouffet, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the "factual predicates underlying" a *prima facie* "obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art")). It is respectfully submitted that the proper test for showing obviousness is what the "combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art", and that the Patent Office must provide particular findings in this regard — the evidence for which does not include "broad conclusory statements standing alone". (See In re Kotzab, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing In re Dembiczak, 50 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1999)

(obviousness rejections reversed where no findings were made "concerning the identification of the relevant art", the "level of ordinary skill in the art" or "the nature of the problem to be solved"))). It is respectfully submitted that there has been no such showings by the Office Actions to date or by the Advisory Action.

In fact, the present lack of any of the required factual findings forces both Appellants and any Appeals Board to resort to unwarranted speculation to ascertain exactly what facts underly the present obviousness rejections. The law mandates that the allocation of the proof burdens requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (See In re Piasecki, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984) (citing In re Warner, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Examiner bears the initial burden of presenting a proper prima facie unpatentability case — which has not been met in the present case. (See In re Oetiker, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

Accordingly, claims 1 to 32 are allowable.

## **CONCLUSION**

In view of the above, it is respectfully submitted that all of the presently pending claims 1 to 32 are allowable. It is therefore respectfully requested that the rejections (and any objections) be withdrawn, since they have been obviated. Since all issues raised have been addressed, an early and favorable action on the merits is respectfully requested.

Dated

Respectfully submitted

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